

ABSTRACT

An optical waveguide element having a directional coupler is disclosed. The element includes a first and a second waveguide located adjacent to each other at a predetermined portion for mode coupling, a first dummy waveguide extending from an one
5 end of the second waveguide, a reflector installed on an end surface of the first dummy waveguide, and a second dummy waveguide located adjacent to the first dummy waveguide at a predetermined portion for a mode coupling. The optical signals progressing from the second dummy waveguide to the first dummy waveguide disappear while sequentially passing through the reflector and the second dummy waveguide. In the optical
10 waveguide element, optical signals passing through the first dummy waveguide gradually disappear while passing through the reflector and the second dummy waveguide, thereby improving a bi-directional cross-talk.